# Contents

(Figures in bold type denote number of issue)

## ARTICLES


AGUIRRE URRETA, M. B. & RAWSON, P. F.
The ammonite sequence in the Agrio Formation (Lower Cretaceous), Neuquén Basin, Argentina, **4**, 449

ALEKSANDROWSKI, P., KRYZA, R., MAZUR, S. & ŻABA, J.
Kinematic data on major Variscan strike-slip faults and shear zones in the Polish Sudetes, northeast Bohemian Massif, **5**, 727

ARNASON, J. G., BIRD, D. K., BERNSTEIN, S., ROSE, N. M. & MANNING, C. E.
Petrology and geochemistry of the Kruuse Fjord Gabbro Complex, East Greenland, **1**, 67

BOZKURT, E., HOLDSWORTH, B. K. & KOÇYİĞİT, A.
Implications of Jurassic chert identified in the Tokat Complex, northern Turkey, **1**, 91

BUŁA, Z., JACHOWICZ, M. & ŻABA, J.
Principal characteristics of the Upper Silesian Block and Małopolska Block border zone (southern Poland), **5**, 669

CARRASCO-NÚÑEZ, G.
Lava flow growth inferred from morphometric parameters: a case study of Citlatlépetl volcano, Mexico, **2**, 151

COCKS, L. R. M., McKERROW, W. S. & VAN STAAL, C. R.
The margins of Avalonia, **5**, 627

CROWLEY, Q. & FEELY, M.
New perspectives on the order and style of granite emplacement in the Galway Batholith, western Ireland, **4**, 539

CYMERMAN, Z., PIASECKI, M. A. J. & SESTON, R.
Terranes and terrane boundaries in the Sudetes, northeast Bohemian Massif, **5**, 717

DADLEZ, R.
Seismic profile LT-7 (northwest Poland): geological implications, **5**, 653

DANELIAN, T., DE WEVER, P. & AZÉMA, J.
Palaeoceanographic significance of new and revised palaeontological datings for the onset of Vigla Limestone sedimentation in the Ionian Zone of Greece, **6**, 869

DAY, S. J., CARRACEDO, J. C. & GUILLOU, H.
Age and geometry of an aborted rift flank collapse: the San Andres fault system, El Hierro, Canary Islands, **4**, 523

DEAN, W. T., MARTIN, F., MONOD, O., GÜNAY, Y., KOZLU, H. & BOZDOĞAN, N.
Precambrian? and Cambrian stratigraphy of the Penbeğli-Tut inlier, southeastern Turkey, **1**, 37

DUNLOP, J. A. & HORROCKS, C. A.
Phalangiotarbid arachnids from the Coal Measures of Lancashire, UK, **3**, 369

EDWARDS, R. A., WARRINGTON, G., SCRIVENER, R. C., JONES, N. S., HASLAM, H. W. & AULT, L.
The Exeter Group, south Devon, England: a contribution to the early post-Variscan stratigraphy of northwest Europe, **2**, 177

FIELD, M. H., GIBBARD, P. L. & BRANDON, A.
The first record of *Larix* from the British Pleistocene, **3**, 317

FRIEND, P. F., HARLAND, W. B., ROGERS, D. A., SNAPE, I. & THORNLEY, R. S. W.
Late Silurian and Early Devonian stratigraphy and probable strike-slip tectonics in northwestern Spitsbergen, **4**, 459

GARCIA-LOPEZ, S., BRIME, C., BASTIDA, F. & SARMIENTO, G. N.
Simultaneous use of thermal indicators to analyse the transition from diagenesis to metamorphism: an example from the Variscan Belt of northwest Spain, **3**, 323

GIESE, U., KATZUNG, G., WALTER, R. & WEBER, J.
The Caledonian deformation of the Brabant Massif and the Early Palaeozoic in northeast Germany: compared, **5**, 637

HAGGERTY, R. & BOTTRELL, S. H.
The genesis of the Llanrwst and Llanfair veinfields, North Wales: evidence from fluid inclusions and stable isotopes, **2**, 249

JOHANSON, Z.
New *Remigolepis* (Placodermi; Antiarchi) from Canowindra, New South Wales, Australia, **6**, 813

JOHNSTON, J. D.
Localization of mid-crustal thrust ramps by metadolerite sheets in the Dalradian of northwest Ireland, **2**, 199

KEPPIE, J. D., DOSTAL, J., MURPHY, J. B. & COUSENS, B. L.
Palaeozoic within-plate volcanic rocks in Nova Scotia (Canada) reinterpreted: isotopic constraints on magmatic source and palaeocontinental reconstructions, **4**, 425

KIND, R., GREGERSEN, S., HANKA, W. & BOCK, G.
Seismological evidence for a very sharp Sorgenfrei-Tornquist Zone in southern Sweden, **5**, 591

KLEMENS, W. P. & SCHWERDTNER, W. M.
Emplacement and deformation of granite pegmatite dykes in a mid-crustal regime of late-orogenic extension, southwest Grenville Province, Ontario, Canada, **3**, 287

KOTLIA, B. S., SHUKLA, U. K., BHALLA, M. S., MATHUR, P. D. & PANT, C. C.
Quaternary fluvio-lacustrine deposits of the Lamayuru Basin, Ladakh Himalaya: preliminary multidisciplinary investigations, **6**, 807

KRÓLIKOWSKI, C. & PETECKI, Z.
Crustal structure at the Trans-European Suture Zone in northwest Poland based on gravity data, **5**, 661

MALUSKI, H. & PATOČKA, F.
Geochemistry and $^{40}Ar$–$^{39}Ar$ geochronology of the mafic metavolcanic rocks from the Rýchory Mountains complex (west Sudetes, Bohemian Massif): palaeotectonic significance, **5**, 703

McCARRON, J. J. & MILLAR, I. L.
The age and stratigraphy of fore-arc magmatism on Alexander Island, Antarctica, **4**, 507

McCONNELL, B. & MORRIS, J.
Initiation of Iapetus subduction under Irish Avalonia, **2**, 213

McCUTCHEON, S. R., ANDERSON, H. E. & ROBINSON, P. T.
Stratigraphy and eruptive history of the Late Devonian Mount Pleasant Caldera Complex, Canadian Appalachians, **1**, 17

McLOUGHLIN, S. & DRINNAN, A. N.
Fluvial sedimentology and revised stratigraphy of the Triassic Flagstone Bench Formation, northern Prince Charles Mountains, East Antarctica, **6**, 781

McLOUGHLIN, S. & DRINNAN, A. N.
Revised stratigraphy of the Permian Bainmedart Coal Measures, northern Prince Charles Mountains, East Antarctica, **3**, 335

MEYER-BERTHAUD, B., WENDT, J. & GALTIER, J.
First record of a large *Callixylon* trunk from the late Devonian of Gondwana, **6**, 847

MOCZYDŁOWSKA, M.
Proterozoic and Cambrian successions in Upper Silesia: an Avalonian terrane in southern Poland, **5**, 679

MURPHY, J. B., KEPPIE, J. D., DAVIS, D. & KROGH, T. E.
Regional significance of new U–Pb age data for Neoproterozoic igneous units in Avalonian rocks of northern mainland Nova Scotia, Canada, **1**, 113

PE-PIPER, G. & HATZIPANAGIOTOU, K.
The Pliocene volcanic rocks of Crommyonia, western Greece and their implications for the early evolution of the South Aegean arc, **1**, 55

PHARAOH, T. C., ENGLAND, R. W., VERNIERS, J. & ŻELAŹNIEWICZ, A.
Introduction: geological and geophysical studies in the Trans-European Suture Zone, **5**, 585

PIPER, J. D. A., STEPHEN, J. C. & BRANNEY, M. J.
Palaeomagnetism of the Borrowdale and Eycott volcanic groups, English Lake District: primary and secondary magnetization during a single late Ordovician polarity chron, **4**, 481

PIRRIE, D., CRAME, J. A., RIDING, J. B., BUTCHER, A. R. & TAYLOR, P. D.
Miocene glaciomarine sedimentation in the northern Antarctic Peninsula region: the stratigraphy and sedimentology of the Hobbs Glacier Formation, James Ross Island, **6**, 745

REY, J.
A Liassic isolated platform controlled by tectonics: South Iberian Margin, southeast Spain, **2**, 235

REZAEE, M. R., LEMON, N. M. & SEGGIE, R. J.
Tectonic fingerprints in siderite cement, Tirrawarra Sandstone, southern Cooper Basin, Australia, **1**, 99

RIPPON, J. H., GAYER, R. A. & MILIORIZOS, M.
Variscan structures in the Kent Coalfield, southeast England, and their regional significance, **6**, 855

ROSER, B. P. & NATHAN, S.
An evaluation of elemental mobility during metamorphism of a turbidite sequence (Greenland Group, New Zealand), **2**, 219

SEARLE, M., CORFIELD, R. I., STEPHENSON, B. & McCARRON, J.
Structure of the North Indian continental margin in the Ladakh–Zanskar Himalayas: implications for the timing of obduction of the Spontang ophiolite, India–Asia collision and deformation events in the Himalaya, **3**, 297

SERVAIS, T. & FATKA, O.
Recognition of the Trans-European Suture Zone (TESZ) by the palaeobiogeographical distribution pattern of early to middle Ordovician acritarchs, **5**, 617

SEYİTOĞLU, G.
Late Cenozoic tectono-sedimentary development of the Selendi and Uşak–Güre basins: a contribution to the discussion on the development of east–west and north trending basins in western Turkey, **2**, 163

SHAW, C. S. J. & EDGAR, A. D.
Post-entrainment mineral–melt reactions in spinel peridotite xenoliths from Inver, Donegal, Ireland, **6**, 771

STRAUSS, H., VIDAL, G., MOCZYDŁOWSKA, M. & PACEŚNA, J.
Carbon isotope geochemistry and palaeontology of Neoproterozoic to early Cambrian siliciclastic successions in the East European Platform, Poland, **1**, 1

THISTLEWOOD, L., LEAT, P. T., MILLAR, I. L., STOREY, B. C. & VAUGHAN, A. P. M.
Basement geology and Palaeozoic–Mesozoic mafic dykes from the Cape Meredith Complex, Falkland Islands: a record of repeated intracontinental extension, **3**, 355

THYBO, H.
Geophysical characteristics of the Tornquist Fan area, northwest Trans-European Suture Zone: indication of late Carboniferous to early Permian dextral transtension, **5**, 597

TROUW, R. A. J., PASSCHIER, C. W., SIMÕES, L. S. A., ANDREIS, R. R. & VALERIANO, C. M.
Mesozoic tectonic evolution of the South Orkney Microcontinent, Scotia Arc, Antarctica, **3**, 383

VAN GROOTEL, G., VERNIERS, J., GEERKENS, B., LADURON, D., VERHAEREN, M., HERTOGEN, J. & DE VOS, W.
Timing of magmatism, foreland basin development, metamorphism and inversion in the Anglo-Brabant fold belt, **5**, 607

ŻELAŹNIEWICZ, A.
The Sudetes as a Palaeozoic orogen in central Europe, **5**, 691

ZHANG ZHONGYING
A new Palaeoproterozoic clastic-facies microbiota from the Changzhougou Formation, Changcheng Group, Jixian, north China, **2**, 145

ZHONG HUA & MA YONGSHENG
Carbon isotope stratigraphy of dolomites in the early Proterozoic succession, north China, **6**, 763

## RAPID COMMUNICATIONS

BUFFETAUT, E., LAURENT, Y., LE LOEUFF, J. & BILOTTE, M.
A terminal Cretaceous giant pterosaur from the French Pyrenees, **4**, 553

D'LEMOS, R. S., KEARSLEY, A. T., PEMBROKE, J. W., WATT, G. R. & WRIGHT, P.
Complex quartz growth histories in granite revealed by scanning cathodoluminescence techniques, **4**, 549

GOLDRING, R., POLLARD, J. E. & TAYLOR, A. M.
Naming trace fossils, **2**, 265

HARPER, E. M., PALMER, T. J. & ALPHEY, J. R.
Evolutionary response by bivalves to changing Phanerozoic sea-water chemistry, **3**, 403

NAKAYAMA, K.
Unidirectional to bidirectional subtidal sandwaves influenced by gradually decreasing steady flow velocity, **4**, 557

NEIGE, P., MARCHAND, D. & BONNOT, A.
Ammonoid morphological signal versus sea-level changes, **2**, 261

## DISCUSSIONS

BLUCK, B. J. & INGHAM, J. K.
The Highland Border controversy: a discussion of "New evidence that the Lower Cambrian Leny Limestone at Callander, Perthshire, belongs to the Dalradian Supergroup, and a reassessment of the 'exotic' status of the Highland Border Complex": Comment, **4**, 563

EDWARDS, M. B.
Discussion of glacial or non-glacial origin for the Bigganjargga tillite, Finnmark, northern Norway: Comment, **6**, 873

JAHN, B.
Discussion on Sm–Nd isotopic age of Precambrian–Cambrian boundary in China: Comment, **4**, 571

JENSEN, P. A. & WULFF-PEDERSEN, E.
Discussion of glacial or non-glacial origin for the Bigganjargga tillite, Finnmark, northern Norway: Reply, **6**, 874

TANNER, P. W. G.
The Highland Border controversy: a discussion of "New evidence that the Lower Cambrian Leny Limestone at Callander, Perthshire, belongs to the Dalradian Supergroup, and a reassessment of the 'exotic' status of the Highland Border Complex": Reply, **4**, 565

TURNBULL, M. J. M. & MOORBATH, S.
Discussion on Sm–Nd isotopic age of Precambrian–Cambrian boundary in China: Comment, **4**, 571

YANG JIEDONG & SUN WEIGUO
Discussion on Sm–Nd isotopic age of Precambrian–Cambrian boundary in China: reply, **4**, 572

## REVIEWS

*The Advanced Very High Resolution Radiometer (AVHRR)*, **6**, 881

*Alkaline Rocks: Petrology and Mineralogy*, **3**, 410

*Amber, Resinite, and Fossil Resins*, **3**, 420

*Ancient Sedimentary Environments and their Sub-Surface Diagnosis*, 4th ed., **1**, 130

*Applications of 3-D Seismic Data to Exploration and Production*, **3**, 421

*Applied Micropalaeontology*, **1**, 129

*Asian Coal Prospects to 2010*, **1**, 122

*Atlas of the Textural Patterns of Ore Minerals and Metallogenic Processes*, **3**, 411

*Basement Tectonics 11. Europe and Other Regions*, **3**, 410

*Before the Backbone. Views on the Origin of the Vertebrates*, **3**, 413

*Biomimetic Materials Chemistry*, **6**, 882

*Biotic Recovery from Mass Extinction Events*, **1**, 123

*Body Cavities: Function and Phylogeny*, **1**, 132

*Chemical Fundamentals of Geology*, 2nd ed., **3**, 416

*Climate Change 1995. The Science of Climate Change. Contribution of Working Group I to the Second Assessment Report of the Intergovernmental Panel on Climate Change*, **2**, 281

*Climatic Variations and Forcing Mechanisms of the Last 2000 Years*, **2**, 279
*Coalbed Methane and Coal Geology*, **3**, 411
*Coal Blending for Power Stations*, **1**, 122
*Craters, Cosmos, and Chronicles. A New Theory of Earth*, **1**, 124
*Crystallography*, 2nd ed., **4**, 578
*The Destruction of Sodom, Gomorrah, and Jericho. Geological, Climatological, and Archaeological Background*, **1**, 140
*The Devonian Tetrapod* Ichthyostega, **2**, 273
*Diagenetic Models and Their Implementation. Modeling Transport and Reactions in Aquatic Sediments*, **6**, 877
*Discovery Walks in the Yorkshire Dales: The Southern Dales*, **4**, 581
*Earth Heritage Conservation*, **1**, 127
*Electron Microprobe Analysis and Scanning Electron Microscopy in Geology*, **2**, 281
*Essentials of Geology*, **5**, 741
*Evolution and Environment in Tropical America*, **6**, 880
*The Evolution and Extinction of the Dinosaurs*, **1**, 131
*Evolutionary Paleobiology. In Honor of James W. Valentine*, **4**, 580
*Evolution of Hydrothermal Ecosystems on Earth (and Mars?)*, **3**, 417
*Field Geology of the British Jurassic*, **2**, 271
*A Field Manual for the Amateur Geologist. Tools and Activities for Exploring Our Planet*, **2**, 273
*Foundations of Geomagnetism*, **2**, 278
*Fractography: Fracture Topography as a Tool in Fracture Mechanics and Stress Analysis*, **1**, 136
*Functional Morphology in Vertebrate Paleontology*, **2**, 274
*Geochemical Transformations of Sedimentary Sulfur*, **6**, 878
*Geological and Landscape Conservation*, **1**, 127
*Geological Structures and Maps. A Practical Guide*, 2nd ed., **1**, 130
*Geologic Evolution of the Red Sea*, **3**, 416
*Geology in South-West Scotland. An Excursion Guide*, **4**, 581
*The Geology of Earthquakes*, **4**, 575
*The Geology of Fluvial Deposits. Sedimentary Facies, Basin Analysis, and Petroleum Geology*, **3**, 412
*Geology of Fortrose and eastern Inverness district. Memoir for 1:50 000 Geological Sheet 84W (Scotland)*, **4**, 581
*The Geology of Switzerland. An Introduction to Tectonic Facies*, **1**, 134
*The Geology of the Irish Sea*, **1**, 138
*Geology on your Doorstep. The Role of Urban Geology in Earth Heritage Conservation*, **1**, 139
*Geoscience Education and Training. In Schools and Universities, for Industry and Public Awareness*, **2**, 279
*The GIA Diamond Dictionary CD-ROM*, **1**, 140
*Global Continental Palaeohydrology*, **2**, 275
*Global Events and Event Stratigraphy in the Phanerozoic*, **2**, 280
*Global Tectonics*, 2nd ed., **3**, 418
*Historical Perspective of Early Twentieth Century Carboniferous Paleobotany in North America*, **1**, 125
*The Hot Springs Mammoth Site. A Decade of Field and Laboratory Research in Paleontology, Geology, and Paleoecology*, **2**, 272
*Impact Cratering. A Geologic Process*, **2**, 271
*Indonesian Coal Prospects to 2010*, **1**, 122
*Introduction to Remote Sensing*, 2nd ed., **6**, 880
*An Introduction to the Geological Conservation Review*, **1**, 128
*The Iona Marble Quarry*, 2nd ed., **1**, 136

*Karst in China. Its Geomorphology and Environment*, **1**, 123
*Latur Earthquake*, **3**, 418
*Le Bitume à Suse. Collection du Musée du Louvre*, **5**, 741
*Life and Death of Coral Reefs*, **4**, 576
*The Metamorphic Belts of Ecuador*, **6**, 881
*Metamorphic Crystallization*, **1**, 133
*Minerals of South Africa*, **2**, 277
*The Mount Pinatubo Eruption. Effects on the Atmosphere and Climate*, **6**, 879
*Multicellular Animals. A New Approach to the Phylogenetic Order in Nature*, **2**, 276
*The Nervous Systems of Invertebrates: An Evolutionary and Comparative Approach, with a Coda written by T. H. Bullock*, **1**, 132
*The New Penguin Dictionary of Geology*, **1**, 142
*North from the Hook. 150 Years of the Geological Survey of Ireland*, **3**, 419
*Observation of the Earth and Its Environment. Survey of Missions and Sensors*, 3rd ed., **2**, 269
*On the Rocks. Earth Science for Everyone*, **3**, 415
*Origin and Mineralogy of Clays. Clays and the Environment*, **1**, 137
*Pacific Neogene. Environment, Evolution, and Events*, **1**, 129
*Palaeomagnetic Applications in Hydrocarbon Exploration and Production*, **1**, 121
*Paleoclimate and Evolution, with Emphasis on Human Origins*, **5**, 742
*Paleogeography, Paleoclimate, and Source Rocks*, **2**, 274
*Past Glacial Environments. Sediments, Forms and Techniques. Glacial Environments: Volume 2*, **4**, 576
*Permian and Triassic Rifting in Northwest Europe*, **2**, 280
*Petrogenesis and Experimental Petrology of Granitic Rocks*, **6**, 877
*Petroleum and Basin Evolution. Insights from Petroleum Geochemistry, Geology and Basin Modeling*, **4**, 575
*Petroleum Basins of South America*, **1**, 121
*The Petroleum Geology of Ireland's Offshore Basins*, **2**, 272
*Petrology. Igneous, Sedimentary, and Metamorphic*, 2nd ed., **1**, 138
*Planetary Landscapes*, 2nd ed., **1**, 138
*The Pleistocene Boundary and the Beginning of the Quaternary*, **6**, 878
*Pre-Permian Geology of Central and Eastern Europe*, **1**, 134
*The Principles and Practice of Electron Microscopy*, 2nd ed., **6**, 882
*Recent Advances in Lower Carboniferous Geology*, **3**, 412
*Regolith, Soils and Landforms*, **1**, 132
*Rheology of the Earth*, 2nd ed., **3**, 409
*The Ross of Mull Granite Quarries*, **1**, 136
*The Ross Orogen of the Transantarctic Mountains*, **1**, 140
*Salt Tectonics*, **4**, 579
*Sedimentary Geology. An Introduction to Sedimentary Rocks and Stratigraphy*, **2**, 270
*Sedimentology and Geochemistry of Modern and Ancient Saline Lakes*, **1**, 135
*Sequence Stratigraphy*, **4**, 582
*Sequence Stratigraphy in Offshore South African Divergent Basins. An Atlas on Exploration for Cretaceous Lowstand Traps by Soekor (Pty) Ltd*, **1**, 141
*Sequence Stratigraphy of Foreland Basin Deposits. Outcrop and Subsurface Examples from the Cretaceous of North America*, **3**, 413
*Tectonic Map of Britain, Ireland and Adjacent Areas, sheet 1, scale 1:1 500 000*, **5**, 741
*Tectonics of Sedimentary Basins*, **2**, 270
*Tectonics of the Southern Central Andes. Structure and Evolution of an Active Continental Margin*, **1**, 137

*Terrigenous Clastic Depositional Systems. Applications to Fossil Fuel and Groundwater Resources*, 2nd ed., **3**, 415
*Tertiary Basins of Spain. The Stratigraphic Record of Crustal Kinematics*, **3**, 409
*Third Hutton Symposium. The Origin of Granite and Related Rocks*, **4**, 578
*Trace Fossils. Biology, Taphonomy and Applications*, 2nd ed., **3**, 414
T. rex *and the Crater of Doom*, **6**, 877
*Unconformities and Porosity in Carbonate Strata*, **1**, 125
*Understanding Fossils. An Introduction to Invertebrate Palaeontology*, **2**, 277
*Upgrading Coal: the Essential Step for Sustaining Future Markets*, **1**, 122
*Urban Geoscience*, **2**, 276
*Utility Coal Procurement*, **1**, 122
*Uttarkashi Earthquake (20th October 1991)*, **3**, 418
*Volcanoes of the Solar System*, **3**, 415
*Volcanoes of the World*, 2nd ed., **1**, 126
*Volcanoes. Crucibles of Change*, **6**, 883
*Volcano Instability on the Earth and Other Planets*, **2**, 269

## PUBLICATIONS RECEIVED

Lists appear beginning pages **1,** 143; **2**, 283; **3**, 423; **4**, 583; **5**, 743; **6**, 885